



About CSIR-NGRI



The CSIR-National Geophysical Research Institute (CSIR-NGRI), a constituent research laboratory of the Council of Scientific & Industrial Research (CSIR) was established in 1961 with the mission to carry out research in multidisciplinary areas of the highly complex structure and processes of the Earth system and its extensively interlinked subsystems. NGRI has the mandate to conduct research for public-good science to enable government agencies, public and private sector stakeholders to make informed decisions about use of geo-resources sustainably and improve preparedness and resilience to natural hazards.

As a close understanding of Earth processes and its intersections with the growth and development of the human society only can secure the future, it is our vision to develop the knowledge base of Earth system processes and apply it to produce strategies to minimize loss of life and property from natural disaster as well as manage water, energy, and mineral resources for enhancing the quality of life.

The research activities fall broadly under three themes: **Geodynamics**, which revolve round investigating and modeling fundamental aspects of the Earth system and processes, **Earthquake Hazards**, which encompass features on the surface and subsurface of crust which may potentially endanger lives and properties through catastrophes like earthquakes and landslides as well as depleting and deteriorating groundwater resources and soil, changes in climatic conditions and associated environmental issues. The theme **Natural Resources** comprise of implementation of techniques to identify primary geo-resources, which are the pillars of human civilization and the fount of economic growth like groundwater, hydrocarbons as well as alternate energy sources and minerals.

The Institute is structured into seven major R&D Groups and twenty one Activities, which include expertise in a variety of geophysical, geochemical, geological techniques like Seismology, Magnetotellurics, GPS, Paleo-seismology, Structural geology, Controlled Source Seismics, Gravity and Magnetism, Geochemistry, Geochronology, Paleomagnetism, Planetary, Polar Geophysics, Geomagnetism, Airborne geophysics, Shallow subsurface geophysics and Rock Mechanics, Hydrochemistry, Paleo-environmental studies and Modeling and simulation of Earth processes.

1. About the Training Program

Groundwater is India's most critical resource for agriculture, drinking water, and climate resilience, yet overexploitation and pollution threaten its survival. To protect this lifeline, we must urgently develop specialized technical skills. India needs trained professionals capable of identifying optimal borewell sites, implementing managed aquifer recharge projects, and safely locating waste dump sites to prevent toxic leaching. Cultivating these technical competencies through targeted training is essential to tackle emerging water crises, enforce strict conservation policies, and secure sustainable water supplies for future generations. The training contents compose the fundamentals of electrical and electromagnetic methods including theory, forward simulation & inversion, hands on softwares, field demonstrations, data translation including use of AI/ML

Methods of Instruction:

The methodologies to be covered under BhuNEER Training include.

- Electrical Methods: Sounding, Profiling, Tomography
- Self-Potential (SP) & Induced Polarization (IP) method
- Electric field vector resistivity imaging (EVRI)
- Electromagnetic (EM) methods: Ground TEM, Towed TEM and Heliborne TEM & GPR

The field data collection and interpretation will be on 1D, 2D, 3D, and times lapse electrical method (4D). The detailed discussion and hands on the applications are oriented to enhance the knowledge on the following aspects.

- Groundwater exploration
- Lithological/Hydrogeological characterization
- Hardrock Hydrogeology
- Managed aquifer recharge
- Groundwater contamination studies
- High-resolution mapping of aquifer, paleochannel & tunnel

Faculty:

The training will be conducted by experts at NGRI and other institute with extensive experience.

Selection Procedure:

Selection will be on a first-come, first-served basis, subject to seat availability.

Sponsorship:

Established academic institutions/Government organizations/ industrial sectors are welcome to sponsor candidates of their interest.

Duration : 10 Days

Mode of Training Course : Offline

Number of Seats : 30

Certification : A certificate will be issued to the participants for the successful completion of the course

Venue: CSIR- National Geophysical Research Institute, Uppal Road, Hyderabad - 500007.

2. Eligibility

This training course is intended for those individuals who desire to gain an understanding of the electrical and electromagnetic methods including theory, forward simulation & inversion, hands on softwares, and field demonstrations to unravel the hydrogeological complexities in different geological terrains.

Educational Qualifications:

A Master's Degree/Ph.D. in Geophysics, Geology, Hydrology, or any relevant/allied field; students in the final year of the respective courses; faculty members; and industry professionals are eligible.

Nationality: Indian

3. Technical Requirements

- Participants have to go through the hands-on training of data collection, including processing and interpretation. Therefore, participants are requested to bring their own laptops with good computational power for the computational exercise.
- **SALIENT FEATURES OF THE TRAINING**
 - ❖ 60% Theory and 40% Practical Sessions as per the course curriculum.
 - ❖ Exposure to advanced equipment for data collection and demo software for hands-on exercise
 - ❖ Lectures assisted with models and multimedia aids.
 - ❖ Tutorials (personal attention), interactive sessions, and guest lecturers from experts.

4. Required Documents

The interested candidates may apply through online link given below:

(<https://www.ngri.res.in/cms/skill-development.php>) and has to upload the following documents in the application form:

1. Proof of age (SSC/Aadhar Card/Pan Card)
2. A copy of last examination passed
3. ID proof (College/ Institute/ Employer) & Address proof (Aadhar Card)
4. No Objection Certificate (NOC) from the Institution / Employer
5. Self Declaration form (for those candidates who are currently not pursuing any higher degree or unemployed/not getting any fellowship).

5. Important Dates

Duration: 05-14 October, 2026

Last Date for Applying: 15 September, 2026

6. Charges

Course Fee:

- Rs. 2,500/- + 18% GST = 2950/- (only for Pursuing Master's Students)
- Rs. 5,000/- + 18% GST = 5900/- (For completed Masters/pursuing Ph.D./and who are working as Project assistant/ Project Associates and Senior Project Associate)
- Rs. 10,000/- + 18% GST = 11800/- (for Project Scientist/Post Doctorate/ Faculty / Industry sponsored)

Food:

Breakfast and dinner will be available at nominal rates in the CSIR-NGRI Campus and will be payable by the participants.

Accommodation Charges:

- **CSIR-NGRI Guest House (twin sharing basis):** ₹600/- per head per day for the first 6 days, ₹1200/- per head per day from the 7th day onwards.
- **Skills Development Quarters (twin sharing basis):** ₹100/- per head per day.
- **Staff Quarters/Research Scholars' Hostel (twin sharing basis):** ₹50/- per head per day.

7. Training Coordinator(s)

Dr. Subash Chandra, Scientist-G (Course Coordinator)

Email: schandra.ngri@csir.res.in

Contact Details: 040-2701 2644 (O)/ +91 9885460297

Dr. C. Padmakar, Prin. Technical Officer (Course Co-Coordinator)

Email: c.padmakar.ngri@csir.res.in

Contact Details: 040-2701 2561 (O)/ +91 9422300215

8. Extra Curriculum Activities

- Yoga Classes with expert Trainer
- Quiz Competition/Running/Cultural Programs (Dance/Singing)

9. Program Management Committee

Nodal Officer: Dr. Abhey Ram Bansal, Scientist - G
Email: arb.ngri@csir.res.in

Dr. Satendra Singh, Sr. Technical Officer
Email: satendrasingh.ngri@csir.res.in

Ms. Swaroopa G., Senior Project Associate
Email: skills.ngri@csir.res.in

Office Contact: 040-2701 2325/2810

10. Chairman

Dr. Prakash Kumar
Director

CSIR- National Geophysical Research Institute
Email: director.ngri@csir.res.in
Office Contact: 040-2701 2302

11. Visit Us



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